

On the Comparison of Low Inertia Receivers of
Infrared Radiation, by M. N. Markov. UNCLASSIFIED

RUSSIAN, per, Optika i Spetro, Vol III, No 2, 1957,
pp 158-161. 7185700

Sci - Physics
Mar 58

~~Morris D. Friedman~~
MIT Lincoln Lab

60546
SLR 62-18268
A.C. 825 Tr 1171
NLL m. 6279

A Photoelectric Pyrom^meter for the Measurement
of Color Temperature of Flames, by N. N. Sobolev.

RUSSIAN, per, Optika i Spektroskopiya, Vol III,
No 2, 1957, p 162.

Navy 2225/T-135

Sci - Physics
Jul 59

92,811

High-Speed Infrared Spectrometer for the 0.8-3.0
Band, by O. D. Dmitryevskiy, B. S. Neporent, V. A.
Nikitin, 3 pp.

RUSSIAN, per, Optika i Spektroskop, Vol III, No 2,
1957, pp 180-181.

SIA R-3264

Sci
Jul 59

93,042

Stark Effect in Rotational Spectra of Molecules of the Asymmetrical Top Type in the Presence of Quadrupole Interaction (the Case of u-sQq), by E. Zernakov.

RUSSIAN, per, Optika i Spektroskopiya,
Vol III, No 2, 1957, pp 183-186.

CSIRO 4152

Sci - Phys
Aug 62

211, 231

Absolute Values of Forces of Oscillators For
Lines of Cr, Mn and Cu, by Yu. I. Ostrovskiy.
N. P. Penkin.

RUSSIAN, per, En Optika i Spektro, Vol III,
no 3, 1947, pp 193-201.

5

NRDL, Ft Belvoir
T-1459

Sci. Phys
Nov 61

178, 458

Luminosity of a Spectrometer With a
Fabry-Perot Interferometer, by
M. P. Chaika, 18 pp.
RUSSIAN, per, Optika i Spek, Vol III,
No 4, 1957, pp 372-379. P100085567
AFCRL G-T-R-65-16

Sci - Phys
Mar 67

320,564

Atomic Absorption Centers and Luminescence
Phenomena in Heavy-Element Activated Alkali-Halide
Phosphors, and Their Preparation Under the
Influence of Band Radiation, by M. L. Kats, 10 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol III,
No 6, 1957, pp 602-609, 9230424.
AEC IS-trans-18

293,005

Sci
Nov 65

Optical Absorption by $PbCl_2$ With a Stoichiometric Excess of Metal or Halogen,
by N. M. Gudris, I. N. Shul'ts, 5 pp.

RUSSIAN, per, Optika i Spektroskopiya,
Vol III, 1957, pp 246-250.

ATS-25M39R

ATS/RJ-2617

Sci
Vol IV, No 2
Mar 62

188,881

Optical Properties of Thin Layers of Cadmium Oxide
in the Infrared Region of the Spectrum, by V. K.
Miloslavskiy,

RUSSIAN, per, Optika i Spektroskopiya, Vol III,
No 3, 1957, pp 251-257. 9071338

ATS 11M40B

ATS/RJ-2618

Sci - Phys

128 HHHH

Neporent, B. S., Vasilevskii, K. P. and others.
A VACUUM SPECTROMETER WITH DIFFRACTION
GRATING FOR THE REGION 0.7-3 MICRONS
(Vakuumnyi Spektrometr s Difraktsionnoi Reshetkoi
dlya Oblasti Spektra 0.7-3 Mu) tr. by R. G. Merrill.
22 June 61 [7]p. (5 figs. omitted) 1 ref.
Order from OTS or SLA \$1.10

61-27254

Trans. of Optika i Spektroskopiya (USSR) 1957, v. 3,
no. 3, p. 289-293.

DESCRIPTORS: *Infrared spectroscopy, *Diffraction
gratings, Vacuum apparatus, Monochromatic light,
Resolution, Design, Optics, Reflection, Water vapor,
Carbon compounds, Monoxides, Absorption spectra,
*Optical spectrometers.

On the basis of a diffraction grating monochromator, a
device was constructed for investigating the infrared
spectrum in the region 0.7 to 3 microns with a resolu-
(Physics--Spectroscopy, TT, v. 8, no. 1) (over)

61-27254

I. Neporent, B. S.
II. Vasilevskii, K. P.

Office of Technical Services

Table of Contents only:

RUSSIAN, per, Optika i Spektrosopiya, Vol III, No 4,
1957.

CIA/FDD X-2712

MORRIS D. FRIEDMAN

Feb 58

Luminosity of a Spectrometer With Fabry-
Perot Interferometer, by M. P. Chaika.

RUSSIAN, per, Optika i Spektroskopiya,
Vol. III, No 4, 1957, pp 372-379.

CSIRO

Sci - Phys
Jun 62

199,223

Relatives f-Values of the Spectral Lines of Scandium,
by Yu. I. Ostrovskiy, M. P. Penkin. UNCL

RUSSIAN, per, Optika i Spektro, Vol III, No 4,
1957, pp 391-393.

DSIR LRU RTS 1126

7s. 6d.

Ssi - Phys
Sep 59

95,848

Biberman, L. M.

About the Application of the Oscillation Force by Means
of Direct Measurement of the Width of the Spectral
Lines of the Finite Optical Density Source.

RUSSIAN, per, Optika i Spektroskopiya, 1957, pp. 397-
399.

*PL 480
OTS 61-11437

Nov 61

The Possibility, in Principle, of Reducing
Atmospheric Influence on the Star Image,
by V. P. Linnik,

RUSSIAN, per, Optika i Spektroskopiya, Vol III,
No 4, pp 401-402. 1957,

C.B.I.R.O. 4533

Sci

May 60

115,594

Contribution of Soviet Science to ~~XX~~ the
Study of Luminescence, by V. L. Levshin.

RUSSIAN, per, Optika i Spetroskopiya, Vol 3,
1957, pp 417-433.

INSDOC/Ref: T.4946

Sci-Phys
Mar 63

225,286

Table of Contents

RUSSIAN, per, Optika i Spektro, Vol III, No 5,
1957.

CIA/FDD X-2894

MORRIS D FRIEDMAN

The Contribution of Soviet Science to the Study of
Luminescence, by V. L. Levshin, 28 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol III,
No 5, 1957, pp 417-433. 9088293

A.C.S.I.L. No 1067

Sci - Phys

Jul 62

203,137

Interferometric Measurements in Metrology , by
M. P. Romanova.

RUSSIAN, par, Opt i Spektro, Vol III, No 5,
1957, pp 457-472.

DSIR 34002/CT

Sci - Physics
Mar 59

83,307

The Emission and Absorption Spectrum of
Uranium, by N. P. Penkin, S. E. Frish, 5 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol III,
1957, pp 473-479.

AEC NP 126

Sci - Chem

Oct 58

74,601

Fillimonov, V. N., Bystrov, D. S., and
Terenin, A. N.
INFRARED SPECTRA OF MOLECULAR COMPOUNDS
WITH METAL HALIDES [Infra-krasnye Spektry
Molekulyarnykh Soyedineniy s Galogenidami Metallov].
[1960] 16p.
Order from ATS \$21.30

ATS-95M45R

Trans. of Optika i Spektroskopiya (USSR) 1957, v. 3,
no. 5, p. 480-494.

146,962
NLL R-8: 5828.4 F (M13330)

(Physics--Spectroscopy, TT, v. 5, no. 5)

61-12379

1. Metal halides--Spectra
2. Infrared spectra--
Analysis
3. Title: Molecular compounds
1. Fillimonov, V. N.
- II. Bystrov, D. S.
- III. Terenin, A. N.
- IV. ATS-95M45R.
- V. Associated Technical
Services, Inc., East
Orange, N. J.

ATS RJ-W07H

Office of Technical Services

Application of the Theory of Aberrations of High
Orders to the Calculation of Optical Systems,
by D. Yu Gal'peru, 19 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol III,
No 5, 1957, pp 514-528.

CIA/PDO XX-574

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Physics
Jan 59

NLL M.2560

79,683

USIS INTERNAL USE ONLY

SLA R-4921

Obtaining Arc and Spark Spectra of Gadolinium,
Dysprosium, Erbium, and Thulium in an AC Arc, by A. I.
Akimov, 16 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol III, 1957,
pp 545-551.

AEC CEA Tr R474

Reverse Trans Russian to French
Feb 59

T/C of

RUSSIAN, per, Optika i Spektroskopiya, Vol III, No 6,
1957

FDD/X-2920

Infrared and Combination Spectra of Boron Anhydride.
II. Infrared Spectrum and Structure of Boron An-
hydride Molecules, by T. A. Sidarov, N. N. Sobolev.

RUSSIAN, per, Optika i Spektroskopiya, Vol III,
No 6, 1957, p 560. — 567 2419 JLA 60-19582

Navy 2236/T-151

Sci - Physics
Aug 59

95, 659

Concerning the Diffusion Theory of Phosphorescence,
by V. V. Antonov-Romanovskiy, 19 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol III,
No 6, 1957, pp 592-601.

CIA/FDD XX-1536
NO FOREIGN DISSEM

Sci - Phys

May 64

USIB Internal Use Only

251,047
9

Atomic Absorption and Luminescence
Centers in Alkali Metal Halide
Phosphors Activated by Heavy Metal
Ions and Their Formation Under the
Effect of Hard Radiation, by
M. L. Kats.

RUSSIAN, per, Optika i Spektroskopiya,
Vol 3, No 6, 1957, pp 602-609.

*Dept of Navy APL/JHU J-1213

Sci/Phys
Oct 68

Photochemical Conversion of Color Centers in
Heated Alkali-Halide Crystals, by A. A. Shatalov,
13 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol. IZI,
No 6, 1957, pp 610-618.

CIA 59-10777

NLL M.2526

Sci - Phys
Sep 59
Vol 2, No 1

97,792

15 693

UK-39

KARAPET'YAN G. O.

The effect of oxidising and reducing conditions on the spectral absorption and luminescence of cerium ions in glass

Opt. i Spektrosk., 3, No. 6, p. 641 (1957)

Tr/60/33. £ 3. 16s. 6d. - English

E u r a t o m

12 513

US-14

VERTSNER V. N., MALAJHOV L. N.

Study of the microdistribution of electric fields by using electron optics

Opt. i Spektrosk., 3, No. 6, 649-652 (1957)

RJ-2619. \$ 7.75 - English

E u r a t o m

ATS/RJ-2619

On the Motion of the Ions and the Profile of the
Spark Lines in the Positive Column of a Discharge,
II. Radial Motion of the Ions in a Low Pressure
Discharge, by Yu. M. Kagan, V. I. Perel, 13 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
1958, pp 3- 8.

AEC Sp-113

Sci - Phys

Oct 58

74,467

Dependence of the Quenching of Fluorescence
in Solutions by Absorbing Substances on the
Viscosity of the Solvent, by L. A. Kuznetsova,
B. Ya. Sveshnikov, 7 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 1, 1958, p 55. 9097048

AEC Tr-4804

Sci - Phys
Apr 62

189,962

On Polarized Luminescence of Colored Crystals,
by V. L. Vinetskiy, M. F. Daygen, 7 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol 4,
No 1, 1958, pp 60-65.
AIR/FTD/HT-23-1288-67 AD 679 711

Sci-Phys
Feb 69

372.978

Preparation of Infrared Transmitting Films, by Z. V. Shirokshina, N. V. Suykovskaya, 8 pp.

RUSSIAN, per, Optika i Spektros, Vol IV, No 1, 1958, pp 82-86.

SIA 59-15025

Sci.- Physics
Sep 59
Vol II, No 2,

NLL M.25/6

98, 6 77

Incandescent Lamp With Mica Window for the Infrared
Region of the Spectrum, by Ye. N. Maleyev, *et al.*

RUSSIAN, per, Optika i Spektro, Vol IV, No 1,
1958, pp 121-122.

✓*ACSI I-8301
ID 2224781

Sci - Phys
5 Mar 63

Mott Exciton Theory in Alkali Halide,
Crystals, by S. A. Moskalenko, 11 pp.

RUSSIAN, per, Optika i Spektroskopiya,
Vol V, No 2, 1958, pp 147-155.

ATB-27M39R

Sci
Mar 62
Vol IV, No 2

189,305

On a Method of Quantitative Gas Analysis by Electron-
Vibrational Spectra of Diatomic Molecules,
by L. V. Leskov, 21 pp.
RUSSIAN, per. Optika i Spektro, Vol IV, No 2, 1958,
pp 168-179. 9226254
AEC-NP-Tr-1189

Sci-Chem
Jan 65

271,801

Infrared Spectral Transmittance of Porous and
Quartzoid Glasses, by N. A. Sevchenko, V. A.
Florinskaya, 9 pp.

RUSSIAN, per, Optika i Spektroskopiya SSR, Vol IV,
No 2, 1958, pp 189-195.

SLA 59-10914

Sci - Chem
Sep 59
Vol 2, No 1

NLL M.2524

97,783

On the Quenching of Luminescence of Organic
Substances Upon Excitation by α -Particles,
by M. D. Galanin, Z. A. Chizhikova, 8 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
1958, pp 196-202.

AEC Tr 3549

Sci - Phys
Mar 59

82,887

On the Kinetics of Photochemical Transformations and
Concentration Fluorescence Extinction of 9-Mono-
alkylated Anthracenes, by A. S. Cherkasov, T. M. Vember,
12 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 2,
1958, pp 203-210. 9221920
AEC-Tr-6309

Sci-Phys
May 64

257,481

Multilayer Dielectric Coatings With a High Coefficient
of Reflectance on Glass Surfaces, by T. N. Krylova,
12 pp.

RUSSIAN, per, Optika i Spektroskopiya SSR, Vol IV,
No 2, 1958, pp 217-224.

SIA 59-10913

Sci - Chem
Sep 59
Vol 2, No 1

NLL M.2523

97,782

Theoretical Investigations of the Behavior of
Luminescent Radiation of Dispersed Luminescent
Particles, by A. P. Ivanov, 17 pp.

RUSSIAN, per, Optika i Spektroskopiya USSR,
Vol IV, No 2, 1958, pp 225-235.

SLA 59-15022

Sci - Physics
Sep 59
Vol II, No 2

NLL M.2522

XX-729⁹⁸ 675

Experimental Investigation of the Laws of
Luminescence of Disperse Luminescent Objects,
by A. P. Ivanov,

RUSSIAN, per, Optika i Spektro, Vol IV, No 2,
1958, pp 236-244.

*TIL T-5128

Sci - Phys

Jul 60

The Connection Between the Real and Practical
Yields of Luminescence of Infinitely Thick
Light-Diffusing Layers, by A. P. Ivanov, S. M.
Mosunova,

RUSSIAN, per, Optika i Spektro, Vol IV, No 2,
1958, pp 245-251.

*TIL T-5127

Sci - Phys

Jul 60

Reflection Spectra of Quartz Crystal Plates Cut
at Different Angles to the Optical Axis Within
the 7-24 Wavelength Range, by N. A. Sevchenko,
V. A. Florinskaya, 6 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 2, 1958, pp 261-264.

SLA 59-15026

Sci
Dec 59
Vol 2, No 4

NLL M.2521

103,084

Optical Monocrystals of Strontium and Barium Fluorides,
by I. V. Stepanov, I. A. Sinyukova, E. G. Chernetskaya,
6 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 2, 1958, pp 272-274.

USASIA Tr-1138

Kci - Chem
Apr 61

144, 926

A Method of Measuring the Reflection Coefficient
of Mirrors, by R. B. Tagirov, 3 pp.

RUSSIAN, per, Optika i Spektro, Vol IV, No 2,
1958, pp 278, 279.

SLA 59-10912

NLL M.2520

Sci - Physics

Sep 59

Vol II, No 2

XX-728

98,680

Possibility of Using Pulse Lamps for Studying
the Relaxations of Luminescence and Photocon-
ductivity, by N. A. Tolstoy, 4 pp.

RUSSIAN, per, Optika i Spektroskopiya, USSR,
Vol IV, No 2, 1958, pp 279-281.

SLA 59-10911

NLL M.2519

Sci - Physics

Sep 59

Vol II, No 2

98,672

On the Motion of Ions and the Shape of Their
Lines in the Positive Discharge Column, III. A
Directed Motion of Ions in a Discharge at
Arbitrary Pressure, by Yu. M. Kagan, V. I. Perel,
6 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 3, 1958, pp 285-288.

AEC NP-124

Sci - Nuc Phys

Oct 58

74, 470

Changes in the Infrared Spectra of Molecules
During Their Interaction With Adsorption Centres
of Aluminium Silicate Catalysts, by L. M. Royev,
V. E. Filimonov, A. E. Terenin, 8 pp.

RUSSIAN, per, Optika i Spektro, Vol IV, No 3,
1958, pp 328-335. 9075606

ATS 29828R

ATS 13-2002

Sci - Phys

May 59

OTS I, 8

87,454

The Luminescence of Crystalline Anthracene
at 20.4°K, by A. P. Prikhodo, I. Ya. Fugol,
10 pp.

RUSSIAN, RST; Optika i Spektroskopia: Vol. XV,
1958, pp 335-.

DSIS, DRB Canada 48

Sci - Phys
Oct 59

109,337

Luminescence of Cadmium Sulfide Crystals, by V. A. Yermenko, 11 p.

RUSSIAN, per, Optika i Spektroskopiya, 1958, Vol IV, No 3, pp 348-353.

Sci
Mir 60
Vol 3, No 1

NLL M. 2473

SLA 59-20836

DSIR LCU M. 1707

(loan)

111,028

New Data Regarding the Excitation Functions of
Helium Lines, by S. N. Frish, V. N. Yakhontova.
UNCL

RUSSIAN, per, Optika i Spektre, Vol IV, No 3,
1958, pp 402-404.

U/L 17.4363
DATA 35007/C2

Sci - Phys
Apr 59

62-13146

85,077

A Low-Voltage Vacuum Pulsed Discharge for
Exciting Spectra, by V. Z. Fedos, N. S.
Sventitskiy. UNCL

RUSSIAN, per, Optika i Spektro, Vol IV, No 3,
1958, pp 407-409.

SIA 60-23028
DSIR 34997/CT

Sci - Phys
Apr 59

85,078

Duration of Photoluminescence of Alkali-Halide
Crystals or Activated Tl or In, by I. K. Plyavin,
5 pp.
RUSSIAN, per, Optika i Spektroskopiya, No 4,
1958, pp 266-268.
ARM/RSIC/Tr-911-69

Sci/Phy
May 69

377,464

Determination of the Degree of Non-Uniformity in DC
and AC Arc Discharges, by I. V. Dvornikova, I. M. ~~MAKIN~~
Nagibina.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4,
1958, pp 421-429.

*PL-480

Sci
Jul 63

Nagibina, I. M.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
1958, pp 430-~~432~~437.

*PL-480
OTS 63-11135
PST-896

Sci

Dec 62

Dianov-Klokov, V.I.
SPECTRE D'ABSORPTION DE L'OXYGÈNE LIQUIDE
DANS L'INTERVALLE DE TEMPÉRATURE 77-153° K
(12600-3300 Å) (Absorption Spectrum of Liquid
Oxygen in the 12600-3300 Å Region in the Temperature
Range 77-153°K). 20p. (foreign text included, but
illegible), 23refs. CNRS-XXVIII 48.
Order from OTS, ETC or CNRS \$0.80 TT-62-28585

Trans. in French of *Optika i Spektroskopiya* (USSR)
1958, v.4, no.4, p.448-454.

DESCRIPTORS: *Oxygen, Liquefied gases, *Absorption
spectrum, Spectrophotometers, Complex compounds.

(Physics-Spectroscopy, TT, v. 11, no. 9)

TT-62-28585

- I. Dianov-Klokov, V.I.
- II. CNRS-XXVIII 48
- III. Centre National de la Recherche Scientifique, Paris

Office of Technical Services
European Translations Centre

The Dependence of the Absorption of Infrared
Radiation by Water Vapor on Concentration
and Path Length in the Case of Singel Lines
and Groups of Lines in the Band, by K. P.
Vasilevskiy, B. S. Kaporent, 13 pp.

RUSSIAN, per, Optika i Spektroskopiya,
Vol IV, No 4, 1958, pp 474-480.

SLA 60-23517

Sci
Vol IV, No 7
May 62

193, 678

Distribution of Light Energy Changed in the Diffraction
Pattern by Variable Transmittance Filters, by G. G.
Glyuzerov, N. I. Kulikovskaya, 13 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4,
1958, pp 486-493.

CIA/PDD KX-680
NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Physics
Sep 59

NLL M.2439

OSIB INTERNAL USE ONLY

98,062

Absorption and Scattering of light in Pigments,
by A. S. Toporets, 14 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 4, 1958, pp 494-500.

CIA/FDD XX-679

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Physics
Sep 59

NLL M 2437

USIB INTERNAL USE ONLY

98,061

Method of Precipitation of Solid Dye Layers from
Solutions; Corrections Due to the Reflectance
Made in Absorption Measurements of These Layers,
by L. A. Lysina, 9 p2.

RUSSEAN, per: Optika i Spektroskopiya USSR, Vol 14,
No 4, 1958, pp 501-505.

NLL m. 2436
SLA 59-17221

801
Jan 60
Vol 2, No 7

104,695

Microwave Spectrum and Rotational Constants, of
The C_2H_5Cl Molecule, by A. I. Zarchukov, T. M.
Murina, A. M. Prokhorov, 2 p.

RUSSIAN, per, Opt 1 Spekt, 1958, Vol IV, No 4,
pp 521-523.

SLA 59-20860

Sci
Mar 60
Vol 3, No 1

111, 023

Relationship Between the Scanning Speed and the
Resolving Power of a Spectral Instrument, by V. A.
Nikitin, 5 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4,
1958, pp 523-525.

CIA/FDD XX-678

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Physics
Sep 59

NLL M12435

98,059

USIB INTERNAL USE ONLY

Investigation of Powerful Pulse Discharge With
Limited Channel Diameter, by N. N. Ogurtsov, I. V.
Podmoshenskiy, 12 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, 1958,
pp 539-541.

Sci - Phys
Oct 61

List 60

AEC UCRL-Trans-445
(LOAN) NLL Ref. 0578.9 1963 (1.372)
171, 218

A.C.S.I.L. 30 1372
9210854

Radiospectroscopic Studies Of CH_3GeCl_3 by N.A.
Irisova.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 4, 1958, pp 543-546.

CSIRO Tr 4171

Oct. 62

(2435-D)

XX X

On The Excitonic States of a Molecular Crystal
Containing Different Molecules, by A. F.
Iubchenko, E. I. Rashba, 12 pp.

RUSSIAN, per, Optika i Spektroskopiya Vol IV,
No 5, Leningrad, 1958, pp 580-585.

US JPRS 523-D

Sci - Physics
Feb 59

81,792

(2436-D)

On the Capture of "Free Excitons by Impurities in
Molecular Crystals, by V. M. Agranovich, 15 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 5,
Leningrad, 1958, pp 586-594.

UB JPRS 524-D

Sci - Physics
Feb 59

81,791

Experimental Proof of the Theory of the Transfer
of Electrons by Diffusion; by A. N. Faydysh, 14 pp.

RUSSIAN, per, ~~Optika i Spektroskopiya~~ USSR, Vol. IV,
No 5, 1950, pp 595-601.

SLA 59-17235

NLL 01.2433

Sci

Jan 60

Vol 2, No 7

104, 702

²
Zeeman Effect of Anisotropic Centers in a
Cubic Crystal Lattice, by V. A. Arkhangel'skaya,
P. P. Feofilov, 20 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 5, 1958, pp 602-619.

ATS-21M39R
ATS/RJ-2614

188,069

Sci

Vol 4, No 1
Mar 62

Shpol'skii, E. V. and Girdzhiyauskaite, E. A.
LUMINESCENCE AND ABSORPTION OF PYRENE
AND 3,4-BENZOPYRENE IN FROZEN SOLUTIONS
OF NORMAL PARAFFINS. [1961] 24p. 11 refs.
Order from SLA \$2.60

61-20484

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 4
[no. 5] p. 620-630.

DESCRIPTORS: *Hydrocarbons, Benzoyl radicals,
Solidified gases, Luminescence, Absorption,
Spectrographic analysis, Optics, Fluorescence.

The luminescence spectra and the long-wave portion of
the absorption spectra of pyrene and 3,4-benzopyrene
in solutions of normal paraffinic hydrocarbons from
n-pentane to n-decane have been studied at the temper-
ature of liquid nitrogen. It was shown that under these
conditions the spectra exhibit a linear fine structure
(Physics--Spectroscopy, TT, v. 7, no. 5) (over)

61-20484

I. Shpol'skii, E. V.
II. Girdzhiyauskaite, E. A.

K-H 9681-b

Negative copy loan
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Office of Technical Services

The Reflection of Light by a System of Thin
Film Applied to an Opaque Metal Layer, by M. A.
Validov.

RUSSIAN, per, Optika i Spektroskopia, Vol IV, No 5,
1958, pp 651-657.

NIL M. 2952

Sci - Phys

Dec 61

177, ~~511~~

Interaction Between Electrons and the Activator in
NaCl-Ni and NaCl-Cu Phosphors, by I. A.
Parfyanovich.

RUSSIAN, per, Optika i Spektro, Vol IV, No 5,
1958, pp 692-695.

NLL M. 2431

Sci - Chem

Nov 61

173,883

Polarization of Luminescence and the Nature of
Luminescent Centers in NaCl-Ag and KCl-Tl Crystals,
by L. I. Tarasova, P. P. Feofilov, 4 pp.

RUSSIAN, par, Optika i Spektroskopiya, Vol IV,
No 5, 1958, pp 696-697.

CIA/FDD XX-677

NOT RELEASABLE TO FOREIGN NATIONALS

NLL M.2430

Sci - Physics

Sep 88 59

98,060

USIB INTERNAL USE ONLY

Order from LC on SCA 59-15721

Sverdlov, L.M.
THÉORIE DES INTENSITÉS DES RAIES DE SPEC-
TRES INFRAROUGES DE L'ÉTHYLÈNE ET DU TÉ-
TRADÉTERO-ÉTHYLÈNE (Teoriya Intensivnostei
v Infrakrasnykh Spektrakh Etilena i Tetradetero-
etilena) (Theory of Intensities in the Infrared Spectra
of Ethylene and Tetradeterioethylene). 14p. (foreign
text included) 7refs, CNRS-VIII 110.
Order from OTS, ETC or CNRS \$1.60 TT-62-28781

Trans. in French of Optika i Spektroskopiya (USSR)
1958, v.4, no.5, p.697-701.

DESCRIPTORS: *Ethylenes, Deuterium, Infrared
spectroscopy, *Spectra (Infrared), Intensity

(Physics--Spectroscopy, TT, v. 11, no. 9)

TT-62-28781

I. Sverdlov, L.M.
II. CNRS-VIII 110
III. Centre National de la Recher-
che Scientifique, Paris

Office of Technical Services
European Translations Centre

Determination de la Composition Isotopique
D'Apres les Spectres D'Adsorption, (Determination
of the Isotopic Composition from the Adsorption
Spectra), by A. N. Zaidel, 4 pp.

RUSSIAN to FRENCH, per, Optika i Spektroskopiya,
Vol IV, 1958, pp 701, 702.

Reverse Trans
CEA Tr R-687

Sep 59

97,452

70-13396-07D

Demkov, Yu. N.; Neigauz, M. G.; Senyukov, R. V.
GROUND-STATE ENERGY OF He. Optika i Spektros-
kopiya, v. 4, p. 709-711, 1958. ANL-TRANS-248.
Order from NTC as 70-13396-07D: HC \$ 6.70, MF \$ 5.80.

Comparative Investigations of the Metrological
Qualities of the Spectral Lines of Pb^{20} and
 Cd^{114} , by N. B. Beterchukova. UNCL

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
No 1, 1958, pp 712, 713.

DSIR LNU RTS 1001
5s.0d.

Sci - Phys
May 59

87,896

Determining the Degree of Heterogeneity
of a DC and AC Arc Discharge,
by I. V. Dvornikova, I. M. Nagibina, 16 pp.
RUSSIAN, per, Optika i Spektroskopiya,
Vol IV, No 4, 1958, pp 421-429. 9697292
FTD-TT-64-1138

Sci-Elec
Jul 65

263,543

Validov, M. A.
THE REFLECTION OF LIGHT BY A SYSTEM OF
THIN FILM APPLIED TO AN OPAQUE METAL
LAYER (Otrazhenie Sverh Sistemoi Tonkikh Plenok
Nanesennikh na Neprozrachnyi Metallicheski Sloi) tr.
by L. Meyer. [1961] [9] p. 7 refs. S. M. R. E. Trans.
no. 4375; [DSIR LLU] M. 2952.
Order from OTS or SLA \$1. 10

61-23378

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 4,
no. 5, p. 651-657.

DESCRIPTORS: *Mirrors, *Dielectric films, *Light,
Reflection, Thin films, Metal films

It is shown how A. G. Vlasov's mathematical theory
can be used for calculation of the reflection of light
from metal mirrors covered with layers of dielectric
material. Equations are given for the calculation of
(Physics--Optics, TT, v. 6, no. 9) (over)

61-23378

- I. Validov, M. A.
- II. SMRE Trans-4375
- III. DSIR LLU M. 2952
- IV. Safety in Mines Re-
search Establishment
(Gt. Brit.)

185538

Office of Technical Services

Energy of the Normal State of He, by
Yu. N. Demkov, et al.

Run

GERMAN, per, Optika i Spektroskopiya,
Vol 4, No 6, 1958, pp 709-714.

*AEC

EDC-30 Jan 1966

Sci/MGM

Nov 65

On the Measurement of Lifetimes of the Levels 3^3P
and 3^1P of Helium Atoms by the Method of Delayed
Coincidences, by A. L. Osherovich, I. G. Savich,
7 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
1958, pp 715-718. 9093263

AEC UCRL Tr-767(L)

Sci - Nuc Phys
Apr 62

190,388

Ostrovskiy & Penkin

RUSSIAN, per, Optika i Spektroskopia, Vol Iv, No. 6,
1958, pp. 719-724.

*PL 480
OTS 61-11437

Dec 61

Investigation of the Instantaneous Brightness of a Flash
Discharge, by F. A. Charnaya, 11 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV, 1958,
pp 725-733.

AEC tr-3681

Sci - Phys
Feb 60

107,202

Stepanov, B. I. and Prima, A. M.
THE VIBRATIONAL SPECTRA OF SILICATES. I.
THE COMPUTATION OF FREQUENCIES AND IN-
TENSITIES OF THE SPECTRAL BANDS OF THE
SILICATES. [1961] [28] p. 22 refs.
Order from LC or SLA ml\$2.70, ph\$4.80 61-10905

Trans. of Optika i Spektroskopiya (USSR) 1958,
v. 4 [no. 6] p. 734-749.

New secular equations expressing the frequencies,
forms of the normal vibration, intensities, and polariza-
tion of the vibrational lines of the crystals are de-
rived for pyroxenes, crystals with layers of SiO_4 tetra-
hedra, beta-quartz, and beta-cristobalite. (See also
61-10906)

(Physics--Spectroscopy, TT, v. 5, no. 11)

61-10905

1. Silicates--Spectra
2. Glass--Spectra
3. Raman spectra--Analysis
4. Infrared spectra--Analysis
- I. Stepanov, B. I.
- II. Prima, A. M.
- III. Title: Computation...

158930

Office of Technical Services

On the Causes for the Dependence of the Luminescence
Yield of Organic Substances on the Energy of the
Ionizing Particles, by M. D. Galanin, 7 pp.

RUSSIAN, per, Optika i Spektroskopiya, Vol IV,
1958, pp 758-762.

ABC Tr 3506

Sci - Phys
Feb 59

81,309

Diffraction Gratings From the State Optical
Institute, by F. M. Gerasimov, et al. UNCL

RUSSIAN, per, Optika i Spektro, Vol IV, No 6,
1958, pp 779-790.

DSIR LLU RTS 1005
L1 10s.08.

Sci - Phys
May 59

87, 881

Plates for Vacuum Ultraviolet Photography, by
I. R. Protas, 5 pp.

RUSSIAN, Per, Optika i Spektroskopiya, 1958,
Vol IV, No 6, pp 803-805.

LC or SLA 59-15263

Sci
Nov 59
Vol 2, No 3

NLL M.2442

101, 344

61-20836

Sidorov, T. A. and Sobolev, N. N.
INFRARED AND COMBINATION SPECTRA OF BORIC
ANHYDRIDE. III. INTERPRETATION OF VIBRATION
SPECTRUM OF BORIC ANHYDRIDE AND CAL-
CULATION OF ISOTOPIC EFFECT (Infraasny i
Kombinatsionnyi Spektiry Bornoego Angidrida.
III. Interpretatsiya Kolebatel'nogo Spektira Bornoego
Angidrida i Raschet Izotopicheskogo Effekta). [1961]
[22 p. foreign text included] 13 refs.
Order from OTS or SLA \$2.60 61-20836

Trans. of Optika i Spektroskopiya (USSR) 1958, v. 4,
no. 1, p. 9-16.
Other translations are available from OTS or SLA
\$1.60 as 61-19735 [1961] [13]p. and LC or SLA
mi\$2.40, ph\$3.30 as 60-17905, CTS-591, Dec 58 [17]p

DESCRIPTORS: *Anhydrides, *Boric acids, *Infrared
spectroscopy, Molecular structure, Valence, Polari-
zation, *Molecular spectroscopy, Molecular associ-
(Physics-Spectroscopy, TT, v. 7, no. 3) (over)

I. Sidorov, T. A.
II. Sobolev, N. N.
III. Title: Interpretation ...

Office of Technical Services

Determination of the Degree of Inhomogeneity in
D-C and A-C Arc Discharges, by I. V. Dvornikova,
I. M. Nagibina, 12 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4,
1958, pp 421-429.
OTS 63-III35
PL-480

Sci - Phys
Mar 64

253,038

Determination of the Concentration of Atoms in the
Plasma of an A-C Arc From Line Widths, by
I. M. Nagibina, 8 pp.
RUSSIAN, per, Optika i Spektroskopiya, Vol IV, No 4,
1958, pp 430-437.
OTS 63-11135
PL-480

Sci - Phys
Mar 64

253,039

Ground-State Energy of He, by Yu. N. Demkov,
M. G. Neigauz, et al.
RUSSIAN, per, Optika i Spektroskop. Vol IV, No 6,
1958, pp 709-714. 9291899
AEC-ANL-Tr-248

Sci - Chem
Feb 66

295,467

Stepanov, B. I. and Prima, A. M.
THE VIBRATIONAL SPECTRA OF SILICATES. II.
INTERPRETATION OF THE SPECTRA OF GLASSES.
[1961] [22]p. 15 refs.
Order from LC or SLA mi\$2.70, ph\$4.80 61-10906

Trans. of Optika i Spektroskopiya (USSR) 1958,
v. 5 [no. 1] p. 15-22.

Previously derived equations (Optika i Spektroskopiya
4: 734-749, 1958; available in translation from LC or
SLA mi\$2.70, ph\$4.80 as 61-10905) are used to calcu-
late the vibrational spectra of silicate crystals and to
interpret the Raman and IR spectra of the silicate
glasses and several crystals. The spectra of meta-
silicate and bi-silicate are qualitatively different. The
spectrum of glasses of the bi-silicate composition sug-
gest the existence in glass of the elements of layers
composed of SiO_4 tetrahedra. The crystals with chemi-
cal composition equivalent to that of bi-silicate possess
the layers of SiO_4 tetrahedra.
(Physics--Spectroscopy, TT. v. 5, no. 11)

61-10906

1. Silicates--Spectra
2. Glass--Spectra
3. Raman spectra--Analysis
4. Infrared spectra--Analysis
- I. Stepanov, B. I.
- II. Prima, A. M.
- III. Title: Interpretation...

158985

Office of Technical Services

S-13/60_q

(DC-3345).

Anomalous Variations of the Intensity of
Samarium Spectrum Lines in A D.C. Arc, by
R. R. Shvangiradze, 3 pp.

RUSSIAN, per, Optika i Spektro, Vol V, No 1,
Moscow/Leningrad, 1958, pp 88-90.

JPRS 3343

Sci - Phys
Jun 60

117,223

00/C-1184

(DC-2286)

Spectra of Electron Paramagnetic Resonance of
Cr-Aromatic Compounds With Various Substitutes,
by V. V. Voyevodskiy, Yu. N. Molin, V. M. Chibrikin,)

RUSSIAN, per, Optika i Spektroskopiya, Vol V, 1958,
pp 90-92.

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*US JPRS

L-1054-0

Sci - Chem

Oct 58